

## Session Eleven

### **A Frightening Future: The Rise of Type 2 Diabetes in Youth**



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# A Frightening Future: The Rise of Type 2 Diabetes in Youth

The NDEP strongly encourages inviting a medical person (health care provider or certified diabetes educator) to participate in any sessions that you conduct to provide support for the discussion and to answer any specific medical questions that may arise.

## Background

There are three main types of diabetes:

1. Type 1 diabetes, in which a person's pancreas makes no insulin, and the person must take insulin to survive. This type used to be called juvenile onset diabetes because it was the type that typically occurred in children, but it has been renamed because it can occur at any age.
2. Type 2 diabetes, in which a person's pancreas makes insulin, but either not enough insulin is produced to meet the body's needs or the body is "insulin resistant" and cannot use the insulin in the right way. Being overweight and getting little physical activity put at person a higher risk of developing type 2 diabetes. This type used to be called adult onset diabetes because it was rarely seen in children, but today the name is not accurate because more and more children and teenagers are developing type 2 diabetes. The number of children who are overweight or obese is increasing in the United States, which may be contributing to this rise in type 2 diabetes in youth.
3. Gestational diabetes develops during pregnancy, but then blood sugar levels return to normal after the pregnancy. Women who have had gestational diabetes have a higher risk of developing type 2 diabetes later. Children who are born to women who have had

gestational diabetes during the pregnancy are also at a higher risk of later developing type 2 diabetes.

## Objectives

1. To describe the increase in the number of overweight children and teenagers in the United States.
2. To discuss some of the possible reasons for these increases and their possible consequences.
3. To discuss some actions that a person can take in his or her family and in the community to slow the epidemic of obesity in youth.



***Time needed for discussion: 45 to 60 minutes.***

## Materials

For instructions on borrowing *The Debilitator* film, see page 4 of this guide.

Missouri diabetes statistics can be found on the Missouri Department of Health and Senior Services diabetes web page under Data and Statistical Reports at <http://www.dhss.mo.gov/diabetes/Reports.html>.

The handout *Am I at Risk for Type 2 Diabetes?* can be found behind the Handouts tab at the end of this guide.

- DVD of the film *The Debilitator*.
- DVD player/TV monitor; overhead projector (optional).
- Optional: Maps showing trends in rates of obesity and diabetes can be found as PowerPoint® slides on the CDC Web site <http://www.cdc.gov/diabetes>. You could either print these out to be prepared as overhead transparencies for use with an overhead projector or to be photocopied and given as handouts (one for each participant). If you have access to a computer and an LCD projector, you could show the entire series of slides and emphasize how rates of obesity and diabetes have increased over the past 20 years.
- Handout: *Am I at Risk for Type 2 Diabetes?* (one copy for each participant). Order the brochure by fax or mail using the *NDEP Publications Order Form* at the end of this guide. The brochure may also be ordered online at <http://www.ndep.nih.gov> or downloaded for photocopying from <http://www.ndep.nih.gov/diabetes/prev/prevention.htm>.

The handout *Eating Healthily, Moving More* can be found at the end of this session (after page 88).

The handout *More Than 50 Ways to Prevent Diabetes* can be found behind the Handouts tab at the end of this guide.

The *Tips for Children with Type 2 Diabetes Series* can be found behind the Handouts tab at the end of this guide.

The handout *Diabetes in Children and Adolescents* can be found behind the Handouts tab at the end of this guide.

- Handout: *Eating Healthily, Moving More* (included in this discussion guide kit; make at least one copy for each participant).
- Handout: *More Than 50 Ways to Prevent Diabetes* (at least one copy for each participant). Order the brochure by fax or mail using the *NDEP Publications Order Form* at the end of this guide, order it online at <http://www.ndep.nih.gov>, or download it for photocopying at [http://www.ndep.nih.gov/diabetes/pubs/50Ways\\_tips.pdf](http://www.ndep.nih.gov/diabetes/pubs/50Ways_tips.pdf).
- Handout: *Tips for Children with Type 2 Diabetes Series* sheets on “What is Diabetes?,” “Be Active,” “Stay at a Healthy Weight,” and “Eat Healthy Foods” (at least one copy for each participant). Order the brochure by fax or mail using the *NDEP Publications Order Form* at the end of this guide, order it online at <http://www.ndep.nih.gov>, or download it for photocopying at <http://www.ndep.nih.gov/diabetes/youth/youth.htm>.
- Handout: *Diabetes in Children and Adolescents* (at least one copy for each participant). Download the brochure for photocopying at [http://www.ndep.nih.gov/diabetes/pubs/Youth\\_Factsheet.pdf](http://www.ndep.nih.gov/diabetes/pubs/Youth_Factsheet.pdf).
- Optional: Flipchart or blackboard for writing down key words from discussion.

## Method

- Conduct a facilitated discussion (group discussion with a leader asking stimulation questions).
  - Play the film, or select scenes from the film as needed.
1. **Ask the group:** Did you believe the doctor on the radio show in the film when he said that children as young as age 4 have developed type 2 diabetes? [*This is true, unfortunately.*] Why are we seeing more obesity in children? How does this increase in obesity relate to diabetes?

Show the obesity and diabetes maps, or distribute the handout with links to download the maps.



***Make sure that the discussion brings out the following points:***

- CDC estimates that, if current trends continue, one in three children born today will develop diabetes in their lifetime. Not everyone who is overweight develops diabetes, and not everyone who has diabetes is overweight, but the two do tend to go hand-in-hand. Look at the maps. As the rate of overweight has gone up, so has the rate of diabetes.
  - The percentage of children in the United States who are overweight or obese has tripled in the past 20 years. In 2000, 10.4 percent of children 2 to 5 years old, 15.3 percent of children 6 to 11 years old, and 15.5 percent of adolescents 12 to 19 years old were overweight.
  - Even preschool children are affected. In children this young, overweight can't be blamed on school lunches and lack of physical education in the schools!
2. **Ask:** Do you think that Calvin's children in the film are at risk of developing diabetes? Why or why not?
  3. **Distribute** the NDEP brochure *Am I at Risk for Type 2 Diabetes?* for more information. Calvin's children are at increased risk, but they can take steps to reduce that risk by leading a healthy lifestyle.



***Make sure that the discussion brings out the following points:***

- Several factors increase the children's risk:
  - Being African American is a risk factor for developing diabetes.
  - Diabetes tends to run in families, and Calvin has diabetes.
  - Calvin's son is showing interest in sedentary activities, which could reduce his physical activity. (Recall the scene in which he is

playing video games instead of playing actively outside.)

- Several factors decrease the children's risk:
  - Calvin's daughter eats healthily and exercises at the gym.
  - Neither son nor daughter looks overweight, and they lower their risk of developing diabetes by eating healthily and maintaining a healthy weight.

4. **Ask:** After Calvin talks to his family members about his diabetes, what decisions do they make together that will help him control his diabetes and will also help them all live more healthily?

*Examples may include the following:*

- Calvin says, "Son, we're going to spend more time together working out. I promise."
- Calvin plans to go running with his daughter on a trail through the park.
- Calvin's wife plans to cook healthful meals to benefit the whole family.
- The family looks for more information on diabetes and for more support. For example, at dinner Calvin's wife mentions spirituality and talking to her pastor.

5. **Ask:** Do you think that people in your family are at higher risk than most people of developing diabetes? Do you think that your family can make the same kinds of changes that Calvin's family does?



***Make sure that the discussion brings out the following points:***

- It's not always as easy to get children away from video games and outside playing as it was for Calvin.

**Ask:** Does anyone have any suggestions for dealing with this situation?

*Possible responses:*

- Just sending the child outside to play should lead to more physical activity than watching TV does. You don't have to tell the child exactly what game or activity to do.
  - Join your child outside.
  - If you can't join your child, and you don't feel comfortable having him or her play outside, you may be able to find other safe places where your child can be more active.
  - Limiting the number of hours for watching TV, using the computer, and playing video games is one method that has proved helpful in controlling children's weight (partly because children then have less time to snack in front of the TV).
  - Going running in the park is not realistic for many people (for example, because they have arthritis in the knees, because they live in an unsafe neighborhood, or because they live in a climate that is too hot or too cold for running during part of the year). But everyone can find ways to increase physical activity, even inside the house.
6. **Say:** Let's brainstorm about what else you can do for physical activity with a buddy or with family members.

*Examples might include:*

- Walk in the shopping mall or on a school track.
  - Try roller skating at an indoor rink.
  - Walk the dog. If you don't have one, do a good deed by walking an elderly neighbor's dog on a regular basis.
7. **Tell the group:** Many people may believe that eating healthily is too expensive for them. Does it cost Calvin's family more to eat baked chicken and baked potatoes than to eat fried chicken and french fries?





## Classroom Exercise

Ask participants to take 5 minutes to think of at least one thing that they can do when they go home to get their whole family eating more healthful meals, and one thing that they can do during the coming week to be more physically active. Remind them that their motivation is not just to improve their own health but also to teach healthier habits to members of the future generation.

**Note:** Remind people in the group who live alone that they are not off the hook! Suggest to them that they can connect with family members by telephone to work on developing healthier habits, or they can choose to “buddy up” with someone at work, from church, from school, or from their neighborhood. If a holiday is coming up and they will be getting together with others, ask them to think about how they can make the event more healthful.



Distribute the handout *Eating Healthily, Moving More* and have each person write down at least one idea in each category.

At the end of 5 minutes, ask if anyone needs more time. If yes, give them 5 more minutes. Then ask if anyone would be willing to share what he or she has written down.



## Homework Exercise

Ask participants to take home the handout *Eating Healthily, Moving More* and to think about adding one new idea to it each day. Distribute the handouts *More than 50 Ways to Prevent Diabetes*, *Tips for Children with Type 2 Diabetes Series* sheets, and *Diabetes in Children and Adolescents* to each participant to give them additional ideas.

Optional: There are lots of resources for kids who are overweight from the Weight-control Information Network. Visit <http://win.niddk.NIH.gov/publications/index.htm#public>





## **Handout for Session Eleven**

# **Obesity Maps and Diabetes Maps**

## **Overweight and Obesity: Obesity Trends: U.S. Obesity Trends 1985–2004**

Download at:

[\*http://www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/\*](http://www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/)

## **Age-Adjusted Prevalence of Diagnosed Diabetes per 100 Adult Population, by State, United States, 2004**

Download at:

[\*http://www.cdc.gov/diabetes/statistics/prev/state/fPrevalence2004Total.htm\*](http://www.cdc.gov/diabetes/statistics/prev/state/fPrevalence2004Total.htm)

## **Missouri Diabetes Data and Statistical Reports**

[\*http://www.dhss.mo.gov/diabetes/Reports.html\*](http://www.dhss.mo.gov/diabetes/Reports.html)





## **Handout for Session Eleven**

# Eating Healthily, Moving More

### **Write down your ideas below:**

One thing that I can do this week to get my family to eat more healthful food is:

One thing that I can do this week to get my family to be more physically active is:

